

NEW YORK STATE DEPARTMENT OF TRANSPORTATION
MATERIALS BUREAU ALBANY, NY 12232

MATERIALS METHOD: N.Y. 8.1

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MATERIALS METHOD

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SUBJECT:

QUALITY ASSURANCE PROCEDURE FOR PAVING GRADE ASPHALT CEMENT

APPROVED:

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CODE:

7.42-1-8.1

I. SCOPE

This method details the quality assurance procedures for paving grade asphalt cement intended for use in Department work, subsequent to the placement of the supplier's name on the Department's Approved List. It encompasses:

1. Testing tanks of asphalt cement by the supplier prior to its use in Department work.
2. Certifying by the supplier that the asphalt cement meets Department Specifications.
3. Sampling by Department representatives of asphalt cement at asphalt concrete mix plants.

For Quality Assurance procedures for:

1. asphalt emulsion, see Materials Method N.Y. 8.2;
2. asphalt cutback, asphalt fillers, asphalt subsealers and tars, see Materials Method N.Y. 8.3.

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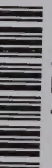
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III. GENERAL METHOD

This method details the system used for sampling, testing and certifying the paving grade asphalt cement and for maintaining approved list status. The method for achieving approved list status is available from the Materials Bureau. The general method is as follows:

Each refinery files with the Materials Bureau before April first of each year typical test results, crude type, and temperature-viscosity charts for the asphalt cement they will produce during the coming season.

The supplier (Primary Source) samples and tests a fixed quantity (lot) of asphalt cement and determines, before it is shipped, that it conforms to Department specifications. The lot is then certified to the Department as meeting specifications.

Shipments are made to mix plants doing Department work accompanied by a shipment certification, executed by the supplier, which identifies the shipment as part of the certified lot. This shipment certification is the basis for incorporating the asphalt cement into asphalt concrete intended for Department work.

Samples are taken by Department representatives at the mix plant. These samples are submitted to the Materials Bureau for test. Final acceptability of the asphalt cement is determined by the Materials Bureau based on tests performed on these samples.

IV. DEFINITION OF TERMS

1. Refinery - A facility which produces asphalt cement by the fractional distillation of petroleum.
2. Primary Source - A supplier, whose name appears on the Department's Approved List and prior to shipment, samples, tests and certifies as meeting Department specifications, a tank of asphalt cement.
3. Asphalt Concrete Mix Plant - A facility engaging in the production of asphalt concrete using asphalt cement as the cementing agent. Pugmill mixers using emulsion or cutback as the cementing agent are not considered asphalt concrete mix plants.
4. Mix Plant Owner/Operator - Individual(s) who own and operate or engage individual(s) to operate an Asphalt Concrete Mix Plant.
5. Department - The New York State Department of Transportation.

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6. Materials Bureau - A facility of the New York State Department of Transportation which may be contacted by mailing to:

Director, Materials Bureau
State Campus, Bldg. 7A
1220 Washington Avenue
Albany, NY 12232

OR telephoning the Product Operations Office at:
(518) 457-5642

OR T. W. X. to:
710-441-8221
N.Y.S. D.o.T. Albany Campus,
Materials Bureau

7. Regional Materials Engineer - A Department representative functioning in a Region whose primary function is to assure the quality of materials used in the construction in that Region.
8. Plant Inspector - A Department representative functioning on inspection assignments at the asphalt concrete mix plant.
9. Asphalt Cement - Asphaltic cementing or binding agent used to make asphalt concrete at asphalt concrete mix plants.
10. Specifications - Current New York State Department of Transportation Specifications and addenda pertaining to the Contract or Maintenance Project on which the materials will be used.
11. Test Methods - Current methods used by the Department to test asphalt cement. A list of the standard methods used is available from the Materials Bureau.
12. Actual Test Results - Test results of actual tests performed on a sample taken from a tank of asphalt cement that the Primary Source intends to certify as a lot for Department work. Actual test results are required for the following asphalt cement properties:
- Viscosity at 140F (60C), poises. (Viscosity graded material only)
 - Viscosity at 275F (135C), cSt. (Penetration graded material only)
 - Penetration at 77F (25C), 100g., 5 sec., 0.1mm.
13. Typical Test Results - Test results, based on actual tests performed, submitted by the Refinery as typical of the asphalt cement item(s) that will be supplied during the year. These results should be filed with the Materials Bureau by April first of each year and should include results for all specification properties.

NYS DOT
Library
50 Wolf Road, POD 34
Albany, New York 12232

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14. Temperature-Viscosity Chart - A chart filed by the Refinery covering the range of temperatures and viscosities for which the asphalt cement may be used. The charts shall have ordinates plotted in Kinematic Viscosity (units in Centistokes) the the abscissa in terms of Temperature (in degrees Fahrenheit). The temperature-viscosity curve should be identified with the name and location of the Refinery and the grade of asphalt cement. The temperature-viscosity data should be typical of the asphalt cement to be produced by the Refinery. The chart should be filed with the Materials Bureau before April first of each year.
15. Certified Lot - A lot of asphalt cement item represented by a sample which has been tested by the Primary Source and found to be in conformance with Department Specification. The lot is certified to the Department as meeting Department specifications. Once a lot is certified, no new material may be added to the lot.
16. Lot Number - A number assigned by the Primary Source to each certified lot of paving grade asphalt cement. The lot numbers shall start with "1" in the beginning of each calendar year. The number shall be assigned regardless of item and no additional symbols such as letters or year designation should be included.
17. Forms - The following forms are published and issued by the Department:
 - a. BR-301 - Certified Analysis Viscosity Graded Asphalt Cement - This Form is used by the Primary Source to certify tanks of asphalt cement for use in Department work. Entries on the Form include Primary Source Identification, Refinery and Crude Source Information and Actual Test Results. This Form is submitted to the Materials Bureau immediately after the actual tests are completed. This Form is available from the Materials Bureau upon request. An example of Form BR-301 can be found in the Appendix, page 14.
 - b. BR-51 - Certified Test Analysis Penetration Graded Asphalt Cement This form is used by the Primary Source to certify tanks of penetration graded asphalt cement for use on Department work. Entries on the Form are identical to those on the BR-301 above. An example of Form BR-51 can be found in the Appendix on page 15.
 - c. BR-162 - Bituminous Material Certified Shipment Notice - This Form is used by a Primary Source to certify that the shipment it accompanies and identifies is from a certified lot of asphalt cement. An example of Form BR-162 can be found in the Appendix on page 16.

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- d. BR-170 - Bitumen or Mix Sample - This Form is used by the Plant Inspector to transmit an asphalt sample to the Materials Bureau for test. The green copy of this Form is returned to the Region submitting the sample by the Materials Bureau, marked "Sample Received" and serves as a sample receipt. An example of Form BR-170 can be found in the Appendix on page 14.
- e. BR-192 - Rejection of Bituminous Materials - This Form is used by the Materials Bureau as the written notification of a rejected sample. It is issued to the Regional Office with copies to the Primary Source and the Highway Maintenance Division (when appropriate).

V. EVIDENCE OF ACCEPTABILITY

Each shipment of asphalt cement used in Department work shall be supplied to an asphalt concrete mix plant from a Primary Source whose name and location appear on the Department's Approved List. The shipment shall be accompanied by a Form BR162, "Bituminous Material Certified Shipment Notice" or their Bill of Lading in a format approved by the Materials Bureau.

Note: This initial acceptance does not preclude later rejection of the asphalt cement based upon samples tested by the Materials Bureau.

VI. STEPS IN PROCEDURE

- A. Filing by the Refinery of Typical Test Results, Crude Type and Temperature-Viscosity Data.
- B. Testing, Certifying and Shipping of Asphalt Cement by a Primary Source.
- C. Sampling by the Plant Inspector at the Asphalt Concrete Mix Plant.
- D. Acceptance or Rejection Action by the Materials Bureau.
- E. Spring Start Up Testing Requirements for the Primary Source and Mix Plant.

A. Filing by the Refinery of Typical Test Results, Crude Type and Temperature-Viscosity Data

Each company with a refinery producing asphalt cement for Department work must supply to the Materials Bureau before April first of each year the following information:

- 1. Typical test results for all specification properties of the asphalt cement item(s) produced for Department work.
- 2. Typical temperature-viscosity charts for these asphalt cement item(s).
- 3. General crude source information.

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A. -Continued-

This information should be representative of the asphalt cement that will be supplied during the year. The information should be submitted to the Materials Bureau by letter.

Should there be significant changes during the year in any of the following, the company should immediately notify the Materials Bureau:

1. Type of crude used.
2. Typical test properties of the cement.
3. The temperature-viscosity relationship of the cement.

B. Testing, Certifying and Shipping of Asphalt Cement by a Primary SourceResponsibilityAction

Primary Source

1. Produces or receives asphalt cement and stores it in a tank at the facility.
2. Obtains a representative sample(s) from the tank.
3. Performs the following actual tests on the sample(s).
 - a. Viscosity at 140F (60C), poises.
(Viscosity Graded Material Only)
 - b. Viscosity at 275F (135C), cSt
(Penetration Graded Material Only)
 - c. Penetration at 77F (25C), 100g., 5 sec.,
0.1mm.
4. Determines the proper specification to apply.
5. Determines that the test results conforms to Department specifications.
6. Assigns a lot number to the lot.
 - a. Once a lot of asphalt cement is sampled, tested and certified by the Primary Source, no materials may be added to the lot.

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ResponsibilityAction

Primary Source

7. Completes Form BR-301, Certified Test Analysis Viscosity Graded Asphalt Cement, or BR-51, Certified Test Analysis Penetration Graded Asphalt Cement, entering the actual test results, the assigned lot number and other required information. Signs and dates the certification statement at the bottom of the appropriate Form. See the appendix on page 14 for an example of a completed Form BR-301 or the appendix on page 15 for the example of Form BR-51.

8. Submits Form BR-301 or BR-51 to the Materials Bureau.

Note: At the option of the Materials Bureau, consideration will be given to a request, in writing, from a Primary Source wishing to utilize their Bill of Lading in lieu of the BR162.

9. Completes Form BR162, Bituminous Material Certified Shipment Notice or Materials Bureau approved Bill of Lading Form for each shipment from the Certified Lot which is intended for Department work. An example of a completed BR162 can be found in the appendix on page 16.

10. Ships to a mix plant from the Certified Lot and distributes the BR162 as shown on the bottom of the Form. If an approved Bill of Lading Form is used, the distribution shall be identical to the BR162.

C. Sampling by the Plant Inspector at the Asphalt Concrete Mix PlantResponsibilityActionMix Plant
Owner/Operator

1. Provides an asphalt sampling valve at the mix plant. The sampling valve shall be designed and installed as to be non-clogging, safe and completely divorced from the solvent clean-out operation. The valve shall be preferably located no more than three feet above ground level and clearly labeled as a "Sampling Valve". However, higher locations may be approved if adequate facilities are provided for both safe sampling and convenience in disposing of the wasted material. The type of valve

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ResponsibilityActionMix Plant
Owner/Operator

1. -continued-
and its general location shall be approved by the Director, Materials Bureau.
 - a. For plants having more than one bituminous storage tank, the valve shall be installed in the line between the tanks and the pugmill or in the recycling line.
 - b. Plants having only one storage tank have the option of installing the valve directly into the tank.
2. Receives the shipment of asphalt cement from the Primary Source and determines that it is accompanied by a completed Form BR162, Bituminous Material Certified Shipment Notice, or an approved Bill of Lading Form.
3. Gives the shipment certification to the Plant Inspector.

Plant Inspector

4. Examines the certification received for each shipment for completeness and verifies the Primary Source and location appears on the Department's Approved Lists.

Note to the Inspector

The first Bill of Lading Form presented as certification for a shipment of asphalt cement shall be attached to a copy of the approval letter issued by the Materials Bureau to the Primary Source. If you receive a Bill of Lading that you cannot verify as approved, contact your Materials Engineer.

5. Obtains samples from each plant producing material for the Department on each day of production. The samples taken shall be considered representative of all material used in Department work from the time of sampling until the time of the next sampling. Allow approximately 30 minutes for recently delivered material to circulate before any samples are taken.
 - a. The first sample shall be obtained as soon as practical upon arrival at the plant.

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ResponsibilityAction

Plant Inspector

5. -continued-
 - b. The second sample shall be obtained at the approximate mid-point of the day's production period.
 - c. Only one, one-quart sample shall be taken at each sampling period. No duplicate samples shall be taken.
 - d. A minimum of two samples are required. This sampling frequency may be increased at the direction of the Regional Materials Engineer.
6. Draws off at least one gallon of asphalt cement, or as much as necessary to ensure a representative sample, from the sampling valve before filling the sample container. This material shall be discarded and not used for the sample.
7. Fills the sample container directly from the sampling valve.
 - a. The sample container shall be a new, clean one-quart metal double friction top can supplied by the Regional Materials Engineer.
 - b. Fills the container at least three-quarters full.
8. Identifies each sample container with the following minimum information:
 - a. Plant Name and Location
 - b. Facility Number (If no record of a Facility Number exists at the plant, contact your Materials Engineer.)
 - c. Grade of Asphalt Cement
 - d. Date and Time Sample Taken
 - e. Name and Location of Primary Source*
 - f. Lot Number*

Note to the Inspector

The drawing off of at least one gallon of asphalt cement from the sampling valve before filling the sample container is absolutely essential. This insures that the sampling valve is cleaned out and that a truly representative sample from the storage tank will be obtained.

Note: The Facility number is a 5 digit number assigned by the Materials Bureau.

***The identification of the Lot Number and Name and Location of the Primary Source shall be as detailed on the BR162, Bituminous Material Certified Shipment Notice, or the approved Bill of Lading Form representing the most recent delivery to the storage tank prior to the time of sampling.**

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ResponsibilityAction

Plant Inspector

9. Prepares the samples for transmittal to the Materials Bureau as follows:
 - a. Selects the first sample taken each week and one additional random sample taken from the second half of that week's production. Examples:
 1. If plant produces Monday-Friday, select first sample taken Monday and one of samples taken Thursday or Friday.
 2. If plant produces Tuesday, Thursday and Friday, select first sample taken Tuesday and one of samples taken Thursday or Friday.
 3. If plant produces Monday and Tuesday only, select first sample taken Monday and one of Tuesday's samples.
 4. If plant only produces one day during week, submit both samples taken that day.
 - b. Completes a Form BR170, Bitumen or Mix Sample for each sample submitted. An example of a completed BR170 can be found in the Appendix on page 14.
 - c. Transmits the package to the Materials Bureau, as directed by the Regional Materials Engineer.
10. Distributes Form BR170 as follows:
 - a. Peels backing off White Card copy and affixes to sample container.
 - b. Encloses White & Green copies in a plain envelope and places inside the wrapping of the sample package.
 - c. Forwards Yellow copy to Region Office.
 - d. Retains Pink copy.

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ResponsibilityAction

Plant Inspector

11. Stores retained samples (unless otherwise requested by the Materials Bureau) protected from the weather in an area sufficiently ventilated to avoid excessively high temperatures.
 - a. Samples taken shall be stored until the end of the calendar year.

D. Acceptance or Rejection Action by the Materials BureauResponsibilityAction

Materials Bureau

1. Receives samples.
2. Stamps Green Copy of Form BR-170 "SAMPLE RECEIVED" and transmits to the Region Office.
3. Tests sample, if sample passes no further action necessary.

- THE FOLLOWING PERTAINS TO REJECTED SAMPLES ONLY -

Materials Bureau

4. Notifies Regional Materials Engineer by telephone of rejected sample and requests up to a maximum of ten (10) retained samples taken immediately prior to the rejected sample and all samples taken subsequent to the rejected sample.
 - a. Retained samples taken more than two weeks prior to the date of the rejected sample need not be submitted.
5. Notifies, in writing, the Regional Office, Primary Source and Highway Maintenance Division (when appropriate) of the rejection using Form BR-192 "Rejection of Bituminous Materials".

Regional Materials
Engineer

6. Notifies the Mix Plant Owner/Operator of the rejection.

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ResponsibilityActionRegional Materials
Engineer

7. Transmits the retained samples to the Materials Bureau.
 - a. Under the "Remarks" section of the Form BR-170 for each sample, enters the test number and serial number of the rejected sample.

Materials Bureau

8. Tests the retained samples.
9. Prepares a chronological summary of the action on all samples including the original sample(s). Defines the time period(s) that the plant was supplying asphalt concrete made from rejected asphalt cement.
10. Transmits the above information in writing to:
 - a. Regional Office.
 - b. Primary Source.
 - c. Construction Division (Main Office).
 - d. Highway Maintenance Division (when appropriate).

E. Spring Start-Up Testing Requirements for the Primary Source and Mix Plant1. At the Primary Source

Before the start of the construction season in any given calendar year, the Primary Source should test and certify each tank of asphalt cement stored over the winter before shipments are made to Mix Plants doing Department work; the tank should be treated as a new lot, tested, assigned a current lot number, and Form BR301 or BR51 submitted to the Materials Bureau.

2. At the Bituminous Concrete Mix Plant

Asphalt Concrete Mix Plants shall demonstrate that the asphalt cement at the plant meets specifications before supplying Department work.

The Mix Plant Owner/Operator shall demonstrate that the asphalt cement at his plant meets specifications by either:

- a. Providing the Regional Materials Engineer with actual test results from tests performed on the stored asphalt cement. These tests should be made within two weeks prior to the proposed start of Department production.

- OR -
- b. Demonstrating to the Regional Materials Engineer that stored asphalt cement was exhausted on non-Department work prior to the proposed start of Department production.

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2. -Continued-

The testing under (a) above may be done by either the Primary Source or a private laboratory. Results can be reported in any suitable format. As a minimum, the reports should include test results for viscosity at 140F, (viscosity at 275F for penetration graded asphalt cement) and penetration at 77F. Results shall be within Specification requirements. No production will be allowed until the Materials Engineer verifies that the asphalt is satisfactory.

Under Number (2b) above, the Mix Plant Owner/Operator shall present to the Materials Engineer shipment notices or other documentation for asphalt received to prove that the plant contains "fresh" asphalt cement.

At the request of the Regional Materials Engineer, the Materials Bureau will test any sample for "Informational Purposes", however, these tests are not a substitute for the requirements stated above.

APPENDIX

1. Form BR301 - Certified Test Analysis Viscosity Graded Asphalt Cement - Used by the Primary Source to certify that the asphalt cement conforms to Department specifications and to submit actual test results to the Materials Bureau.

BR 301b (8/76)		CERTIFIED TEST ANALYSIS VISCOSITY GRADED ASPHALT CEMENT	
INSTRUCTIONS: THIS FORM IS USED BY THE PRIMARY SOURCE TO CERTIFY VISCOSITY GRADED ASPHALT CEMENT TO THE MATERIALS BUREAU. FOR ALL OTHER ITEMS AND GRADES USE FORM BR-247B			
PRIMARY SOURCE INFORMATION:			
LOT NO. <u>5</u>	PRIMARY SOURCE NAME <u>XYZ Petro Corp.</u>		
NYS DOT ITEM NO. <u>702-0500</u>	PRIMARY SOURCE ADDRESS <u>10 Long Street</u>		
VISCOSITY GRADE <u>AC-20</u>	TELEPHONE NO. <u>Hamlet, NY 13208</u>		
GALLONS @ 60°F. <u>50,000</u>	AREA CODE <u>518</u> - <u>555-1942</u>		
REFINERY INFORMATION:			
ENTER BELOW THE NAME AND LOCATION OF THE REFINERY(IES) PRODUCING THE ASPHALT CEMENT. IF MORE THAN ONE REFINERY, ENTER THE GALLONAGE FROM EACH REFINERY.			
1. REFINERY <u>Alaskan Oil Co.</u>	LOCATION <u>Nome, AK</u>	GALS. @ 60°F. _____	
2. REFINERY _____	LOCATION _____	GALS. @ 60°F. _____	
CRUDE SOURCE INFORMATION:			
1. THE ASPHALT CEMENT WAS REFINED FROM CRUDE CONTAINING ALL OR SOME PART DOMESTIC MID-CONTINENT, CANADIAN OR BOSCAN CRUDE. <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
2. IF THE ANSWER TO QUESTION NO.1 IS YES, INDICATE WHICH CRUDE BELOW:			
<u> </u> MID-CONTINENT		<u> X </u> CANADIAN	
<u> </u> BOSCAN			
ACTUAL TEST RESULTS:			
VISCOSITY @ 140°F. (60°C.) _____		2020 POISES _____	
PENETRATION @ 77°F. (25°C.), 100 G., 5 SEC. _____		90 0.1 MM _____	
I HEREBY CERTIFY THAT THE ABOVE MATERIAL CONFORMS TO N.Y.S.D.O.T. SPECIFICATIONS.			
AUTHORIZED SIGNATURE: <u>Phil Tanks</u>		TITLE: <u>Terminal Supervisor</u>	DATE: <u>4/8/87</u>
THIS FORM IS SUPPLIED BY: NEW YORK STATE DEPT. OF TRANSPORTATION - MATERIALS BUREAU 1220 WASHINGTON AVENUE, ALBANY, NEW YORK 12232			

2. Form BR170 - Bitumen Or Mix Sample - Used by the Inspector to submit samples to the Materials Bureau.

Form BR-170c (7/77) NEW YORK STATE DEPT. OF TRANSPORTATION MATERIALS BUREAU		BITUMEN OR MIX SAMPLE		FOR LAB USE ONLY TEST NO. _____ DATE REC'D. _____ SERIAL NO. <u>145211</u>	
SEE REVERSE SIDE FOR INSTRUCTIONS					
PRIMARY SOURCE* <u>XYZ Petro Corp.</u>		LOCATION* <u>Hamlet, NY</u>			
LOT NO.* <u>5</u>	ITEM NO.* <u>702-0500</u>	GRADE TYPE* <u>AC-20</u>	DATE SAMPLED* <u>4/29/87</u>	TIME SAMPLED* <u>9:00 AM</u>	
SAMPLED BY* <u>J. Jones</u>		REGION NO.* <u>12</u>	JOB-MIX FORM. NO. †	TONS REPRESENTED †	
COMPLETE THIS SECTION FOR SAMPLES TAKEN AT BITUMINOUS CONCRETE PLANT.			COMPLETE THIS SECTION FOR SAMPLES TAKEN AT PROJECT SITE.		
NAME OF OWNER* <u>Samson Road Mix Co.</u>			NAME OF SUPPLIER* LOCATION* _____		
LOCATION* <u>Towne, NY</u>			CONT. OR HM NO.* VEHICLE NO.* _____		
REMARKS* <u>Facility No. 99999</u>			STATION AND LANE* GALS. REP. AT 60°F.* _____		
DISTRIBUTION - • Yellow to Region File • Pink to Inspector			• White & Green to Materials Bureau within Sample Pkg. • White Card (Part #5) - Affix to Sample Container		
COMPLETE FOR BITUMEN SAMPLE*			COMPLETE FOR MIX SAMPLE †		
COMPLETE FOR EITHER TYPE OF SAMPLE*†					

APPENDIX (CON'T)

3. Form BR51 - Certified Test Analysis Penetration Graded Asphalt Cement - Used by the Primary Source to certify that the asphalt cement conforms to Department specifications and to submit actual test results to the Materials Bureau.

BR 51 (1982)

CERTIFIED TEST ANALYSIS PENETRATION GRADED ASPHALT CEMENT

INSTRUCTIONS: This form is used by the Primary Source to certify penetration graded asphalt cement to the Materials Bureau.

PRIMARY SOURCE INFORMATION:

Lot No.	<u>6</u>	Primary Source Name	<u>XYZ Petro Corp.</u>
NYS DoT Item No.	<u>702-0600</u>	Primary Source Address	<u>10 Long Street</u>
Penetration Grade	<u>85-100</u>	Telephone No.	<u>Hamlet, NY 13208</u>
Gallons @ 60°F.	<u>50,000</u>	Area Code <u>518</u> -	<u>555-1942</u>

REFINERY INFORMATION:

Enter below the name and location of the refinery(ies) producing the asphalt cement. If more than one refinery, enter the gallonage from each refinery.

1. Refinery	<u>Alaskan Oil Co.</u>	Location	<u>Nome, AK</u>	Gals. @ 60°F.	<u> </u>
2. Refinery	<u> </u>	Location	<u> </u>	Gals. @ 60°F.	<u> </u>

CRUDE SOURCE INFORMATION:

The asphalt cement was refined from the following crude(s):

Canadian

ACTUAL TEST RESULTS:

Viscosity @ 275°F. (135°C.)	<u>345</u>	Centistokes
Penetration @ 77°F. (25°C.), 100 G., 5 Sec.	<u>91</u>	0.1 MM

I HEREBY CERTIFY THAT THE ABOVE MATERIAL CONFORMS TO N.Y.S.D.o.T. SPECIFICATIONS.

AUTHORIZED SIGNATURE: Phil Tanks TITLE: Terminal Suprv. DATE: 4/15/87

THIS FORM IS SUPPLIED BY: NEW YORK STATE DEPT. OF TRANSPORTATION - MATERIALS BUREAU
1220 WASHINGTON AVENUE, ALBANY, NEW YORK 12232

APPENDIX (CON'T)

4. Form BR162 - Bituminous Material Certified Shipment Notice - Used by the Primary Source (XYZ Petro Corp.) to certify a shipment to the Mix Plant (Samson Road Mix Co.).

BR 162c (9/76)

NEW YORK STATE
DEPARTMENT OF TRANSPORTATION
MATERIALS BUREAU

BITUMINOUS MATERIAL CERTIFIED SHIPMENT NOTICE

If one transport supplies two or more projects, a separate BR 162c (9/76) is required for each project.
THIS FORM SHALL BE EXECUTED FOR ALL SHIPMENTS OF BITUMEN.

DEL. TKT. NO. 18726		
ITEM 702-0500	GRADE AC-20	% ADDITIVE

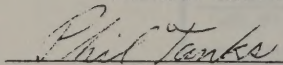
PRIMARY SOURCE*		LOCATION (mailing address)		LOT NO. **	
XYZ Petro Corp.		Hamlet, NY		5	
SUPPLIER (Present owner of material being shipped)		LOCATION (mailing address)			
SHIPMENT DESTINATION		LOCATION (mailing address)			
Samson Road Mix Co.		Towne, NY			
GAL. @ 60 F 5226	SPEC. GRAVITY @ 60 F 1.02	VEHICLE NO. 38421	CONTRACT NO.		
SHIPPED IN	<input checked="" type="checkbox"/> BULK TRANSPORT	<input type="checkbox"/> BULK R.R.	<input type="checkbox"/> BULK BARGE	<input type="checkbox"/> BARRELS	<input type="checkbox"/> DISTRIBUTOR

Complete the following section for LINE BLENDED BITUMENS ONLY.

ITEM GRADE	PRIMARY SOURCE	LOCATION	LOT NO.	GALLONS @ 60 F	% TOTAL	SPEC. GRAVITY @ 60 F

The above indicated material has been tested and a CERTIFIED TEST REPORT, dated 4/8/87 indicating conformance with all requirements of applicable Department Specifications, is on file.

I HEREBY CERTIFY THAT THE ABOVE INFORMATION IS CORRECT TO THE BEST OF MY KNOWLEDGE.

	Terminal Supervisor	4/16/87
Authorized Signature (For Supplier)	Title	Date

* PRIMARY SOURCE — Refinery, Line-Blend Plant, Emulsion Plant, or Intermediate Storage-Facility where BITUMEN is SAMPLED, TESTED, and CERTIFIED or RECERTIFIED.

** TEMPERATURE VISCOSITY CURVE (KINEMATIC)

One copy should be sent with the first shipment of each LOT of Bitumen made to any Mix Plant or Project.
(Not required for Tars, Filler, Emulsions or Emulsion Bases).